

**Semblanzas Ictiológicas Iberoamericanas**  
**Roberto Esser dos Reis**



**Hugo L. López**  
**y**  
**Justina Ponte Gómez**

**Indizada en la base de datos ASFA C.S.A.**  
**2014**

*“El tiempo es invención o no es nada en absoluto”.* Henri Bergson

*“El tiempo es olvido y es memoria”.* Jorge L. Borges

A través de esta nueva serie tratamos de conocer diferentes aspectos personales de los integrantes de la comunidad ictiológica iberoamericana.

Esta iniciativa, comparte el espíritu y objetivo de las semblanzas nacionales buscando informalmente, otro punto de unión en la “comunidad de ictiólogos iberoamericanos”.

Quizás esté equivocado en mi apreciación, pero creo que vale la pena este intento, ya que, con la colaboración generosa e insoslayable de los integrantes de este “universo”, señalaremos un registro en el tiempo de la *Ictiología Neotropical*.

*Hugo L. López*

*“O tempo é uma invenção ou não é nada em absoluto”.* Henri Bergson

*“O tempo é olvido e é memória”.* Jorge L. Borges

Através desta nova série, tentamos conhecer os diferentes aspectos pessoais dos integrantes da comunidade ictiológica ibero-americana.

Esta iniciativa compartilha o espírito e o objetivo das biografias de pesquisadores brasileiros, procurando, informalmente, outro ponto de conexão na “comunidade de ictiólogos ibero-americanos”.

Talvez esteja equivocado na minha apreciação, mas penso que esta tentativa compensa, já que, com a colaboração generosa e voluntária dos integrantes deste “universo”, marcaremos um registro no tempo da *Ictiologia Neotropical*.

*Hugo L. López*



# Semblanas Ictiológicas Iberoamericanas

## Roberto Esser dos Reis



Expedição ao Peru, 2006

**Hugo L. López y Justina Ponte Gómez**

**ProBiota**  
División Zoología Vertebrados  
Museo de La Plata  
FCNyM, UNLP

Agosto, 2014

Imagem de Capa

Roberto Reis com holótipo de *Panaque schaeferi* no MUSM, 2010

Imagem de fundo da Introdução

*Porque en realidad nuestro norte es el sur*, dibujo de Joaquín Torres García

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## Questionário

- **Um livro:** *White Waters and Black*, Gordon MacCreagh
- **Um filme:** *Pulp Fiction*
- **Uma música:** Pink Floyd
- **Um ator:** John Travolta
- **Um esporte:** canyonismo
- **Uma cor:** vermelho
- **Uma comida:** peixe frito
- **Um animal:** peixe
- **Uma palavra:** honestidade
- **Um número:**  $\pi$
- **Uma imagem:** o sorriso da minha filha
- **Um local:** Amazonia
- **Uma estação do ano:** verão
- **Um nome:** Charles Darwin
- **Um homem:** Carlos Chagas
- **Uma mulher:** Angelina Jolie
- **Um ictiólogo do passado:** William Gosline
- **Um ictiólogo atual:** John Lundberg
- **Um personagem de ficção:** Darth Vader
- **Um super-herói:** Ayrton Senna



Luiz Malabarba e Roberto Reis durante uma expedição de inverno no rio Uruguai superior, Rio Grande do Sul, Brasil, 1985

Roberto Reis e Peter Winberger, coletando DNA de espécies de *Gymnogeophagus*, Rio Grande do Sul, Brasil, novembro de 1992







Francisco Langeani, Roberto Reis, Alberto Akama e John Lundberg, rio Amazonas, 1994

Alberto Akama, Francisco Langeani, Mark Westneat e Roberto Reis a bordo do barco Almirante Guimarães, rio Amazonas, 1994



Roberto Reis e  
José Pezzi da  
Silva en no rio  
Uruguay  
superior, janeiro  
1997



José Pezzi da Silva,  
Edson Pereira, Scott  
Schaefer e Roberto Reis  
na praia em Porto  
Seguro, Bahía, Brasil





Expedição ao rio Ucayali, Peru, 2004  
Roberto Reis, a esquerda, com William Crampton e Flavio Lima





Roberto Reis com o holótipo de *Panaque schaeferi* no MUSM, Lima, 2006



A tarrafa e Roberto  
Expedição ao Peru, 2010  
Foto: James Albert

Expedição ao Peru, 2010  
Roberto Reis com Edson  
Pereira







Roberto Reis com Edson Pereira, expedição ao Peru, rio Purus, 2010



Roberto Reis, com James Albert e Paulo Petry (atrás), expedição ao rio Purus, Peru, 2010



Roberto Reis com diversos colegas, expedição ao Peru, rio Purus, 2010



Expedição ao rio Purus, Peru, 2010





Roberto Reis com *Electrophorus*, expedição ao Peru, 2010

# SYSTEMATIC REVISION OF THE NEOTROPICAL CHARACID SUBFAMILY STETHAPRIONINAE (PISCES, CHARACIFORMES)

Roberto E. Reis\*

## RESUMO

A subfamília de Characidae da região neotropical Stethaprioninae Eigenmann (1907) é revisada. O monofilétismo desta subfamília é postulado com base na presença de um espinho pré-dorsal bem desenvolvido e de ganchos modificados na nadadeira anal. *Stethaprion* Cope, 1870 e *Brachychalcinus* Boulenger, 1916 são grupos-irmãos e formam um subgrupo monofilético com *Orthospinus* nom.n. *Poptella* Eigenmann, 1908 é o grupo irmão dos outros três gêneros.

*Orthospinus* nom.n. é proposto para substituir *Buritia*, pré-ocupado em Insecta. Doze espécies são reconhecidas: *Poptella compressa* (Günther, 1864) comb. n., *P. longipinnis* (Popta, 1901), *P. paraguayensis* (Eigenmann, 1907) comb. n., *P. brevispinis* sp. n., *Orthospinus franciscensis* (Eigenmann, 1914) comb. n., *Stethaprion erythrops* Cope, 1870, *S. crenatum* Eigenmann, 1916, *Brachychalcinus orbicularis* (Valenciennes, 1849) comb. n., *B. copei* (Steindachner, 1882), *B. retrospina* Boulenger, 1892, *B. nummus* Böhlke, 1958, e *B. paraitbae* sp. n.

Lectótipos são designados para *Poptella compressa*, *Poptella longipinnis*, *Poptella paraguayensis* e *Brachychalcinus orbicularis*. Novos sinônimos incluem *Buritia cisalpinos* Brant, 1974, sinônimo júnior de *O. franciscensis*; *Stethaprion innesi* Myers, 1933, sinônimo júnior de *B. orbicularis*. As espécies *P. compressa*, *P. paraguayensis*, *P. longipinnis* e *B. retrospina* são revalidadas da sinonímia. Chaves e ilustrações são apresentadas para todas as espécies reconhecidas.

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Revue suisse Zool.

Tome 97

Fasc. 3

p. 729-766

Genève, septembre 1990

# Review of the genus *Hypostomus* Lacépède, 1803 from Southern Brazil, with descriptions of three new species (Pisces, Siluriformes, Loricariidae)

by

Roberto E. REIS\*, Claude WEBER\*\* &amp; Luiz R. MALABARBA\*

With 31 figures

## ABSTRACT

The South Brazilian species of the loricariid catfish genus *Hypostomus* Lacépède, 1803 are reviewed. Eight species were found in the area: *H. aspirogaster* (Cope, 1894), *H. commersonii* Valenciennes, 1840, *H. luteus* (Godoy, 1980), *H. regani* (Ihering, 1905), *H. ~~terneri~~ terneri* (Boulenger, 1895), *H. isbrueckeri* sp. n., *H. roseopunctatus* sp. n., and *H. uruguayensis* sp. n. *Hypostomus latomaculatus* (Devincenzi & Teague, 1942) is synonymized with *H. regani*. Lectotypes are designated for *H. aspirogaster*, *H. luteus* (Eigenmann & Eigenmann, 1888), and *H. regani*. A key, descriptions and illustrations are provided for all species included.

## RESUMO

É feita uma revisão das espécies do gênero *Hypostomus* Lacépède, 1803 (Loricariidae) do sul do Brasil. Oito espécies foram encontradas na área: *H. aspirogaster* (Cope, 1894), *H. commersonii* Valenciennes, 1840, *H. luteus* (Godoy, 1980), *H. regani* (Ihering, 1905), *H. ~~terneri~~ terneri* (Boulenger, 1895), *H. isbrueckeri* sp. n., *H. roseopunctatus* sp. n., e *H. uruguayensis* sp. n. *Hypostomus latomaculatus* (Devincenzi & Teague, 1942) é considerada sinônimo de *H. regani*. Lectótipos são designados para

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R.E. Reis  
 1992

## Revision of the neotropical catfish genus *Hoplosternum* (Ostariophysi: Siluriformes: Callichthyidae), with the description of two new genera and three new species

Roberto E. Reis\*

Species of *Hoplosternum* sensu lato are taxonomically revised. The species of the former *H. littorale* group constitute the genus *Hoplosternum* sensu stricto. The species of the former *H. thovacatum* group are placed in *Megalichthys*, new genus, and the species of the former *H. pectus* group in *Lepthoplosternum*, new genus. Three new species of *Lepthoplosternum* are described: *L. olivaceum* from the upper reaches of the Rio Amazonas in Peru, *L. beai* from the Rio Madeira system in Bolivia, and *L. torfimo* from the lagunas dos Patos system in southern Brazil. Lectotypes are designated for *Callichthys nelsomensis* and *C. salatus*. *Callichthys nelsomensis*, *Cassidichthys maculocephala*, *H. littorale dallsi* and *H. thovacatum ceylanae* are junior synonyms of *H. littorale*. *Hoplosternum thovacatum surinamensis* and *C. eximius* are junior synonyms of *M. personata*. *Callichthys pictus*, *C. salatus* and *H. erincoi* are junior synonyms of *M. thovacata*. A key to genera of subfamily Callichthyinae as well keys to species of *Hoplosternum*, *Megalichthys* and *Lepthoplosternum* are provided.

As espécies de *Hoplosternum* sensu lato são revisadas taxonomicamente. As espécies de *Hoplosternum* grupo *littorale* permanecem no gênero *Hoplosternum* sensu stricto. As espécies de *Hoplosternum* grupo *thovacatum* são transferidas para *Megalichthys* gênero novo e as espécies de *Hoplosternum* grupo *pectus* para *Lepthoplosternum* gênero novo. Três novas espécies de *Lepthoplosternum* são descritas: *L. olivaceum* do alto rio Amazonas, no Peru; *L. beai* do sistema do rio Madeira, na Bolívia; e *L. torfimo* do sistema da laguna dos Patos no sul do Brasil. Lectótipos são designados para *Callichthys nelsomensis* e *C. salatus*. *Callichthys nelsomensis*, *Cassidichthys maculocephala*, *H. littorale dallsi* e *H. thovacatum ceylanae* são sinônimos juniores de *H. littorale*. *Hoplosternum thovacatum surinamensis* e *C. eximius* são sinônimos juniores de *M. personata*. *Callichthys pictus*, *C. salatus* e *H. erincoi* são sinônimos juniores de *M. thovacata*. Chaves para os gêneros da subfamília Callichthyinae bem como para as espécies de *Hoplosternum*, *Megalichthys* e *Lepthoplosternum* são fornecidas.

### Introduction

The species of catfishes traditionally assigned to the genus *Hoplosternum* Gill, 1858 are of small to moderate size (40-160 mm SL) and distributed in South America north of Buenos Aires, on both

sides of the Andes. These species are usually found in lowland, slow-flowing streams with a muddy bottom, sometimes in swamps or marshes, often where dense vegetation is present. In those quiet habitats the species of *Hoplosternum* exhibit the very interesting behavior of building

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## Anatomy and phylogenetic analysis of the neotropical callichthyid catfishes (Ostariophysi, Siluriformes)

ROBERTO E. REIS

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Based mainly on morphological characters, the phylogenetic relationships among genera and some species groups of the neotropical family Callichthyidae were examined. A study of the osteology of a generalized callichthyid, *Callichthys callichthys* (Linnaeus), with detailed comparisons among representatives of the remaining genera in the family, is presented and used as a basis for the phylogenetic analysis. A single most parsimonious tree supported the monophyly of the family Callichthyidae based on 28 derived features and the division of the family in the subfamilies Corydoradinae and Callichthyinae. In the subfamily Corydoradinae, the genus *Apistodes* is the sister-group of the clade formed by *Corydoras* plus *Brotis*. Five derived features support the monophyly of this clade and four support the monophyly of *Brotis*. No characters, however, were found to support the genus *Corydoras*. In the subfamily Callichthyinae, *Dinemus* and *Hypoclinemus* are sister-taxa. *Megalobis* represents the sister-group of *Dinemus* plus *Hypoclinemus* and *Leptoplicostemus* represents the sister-group to *Megalobis* plus *Dinemus* plus *Hypoclinemus*. Finally, *Callichthys* is considered the least derived member of the subfamily, and is hypothesized as the sister-group of the remaining species. A key to all callichthyid genera is provided.

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**ADDITIONAL KEY WORDS:**—South America – biogeography – Loricarioidae – Callichthyidae – phylogeny – Teleostei.

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*Reis*

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## New Cascudinhos from Southern Brazil: Systematics, Endemism, and Relationships (Siluriformes, Loricariidae, Hypoptopomatinae)

ROBERTO E. REIS<sup>1</sup> AND SCOTT A. SCHAEFER<sup>2</sup>

### ABSTRACT

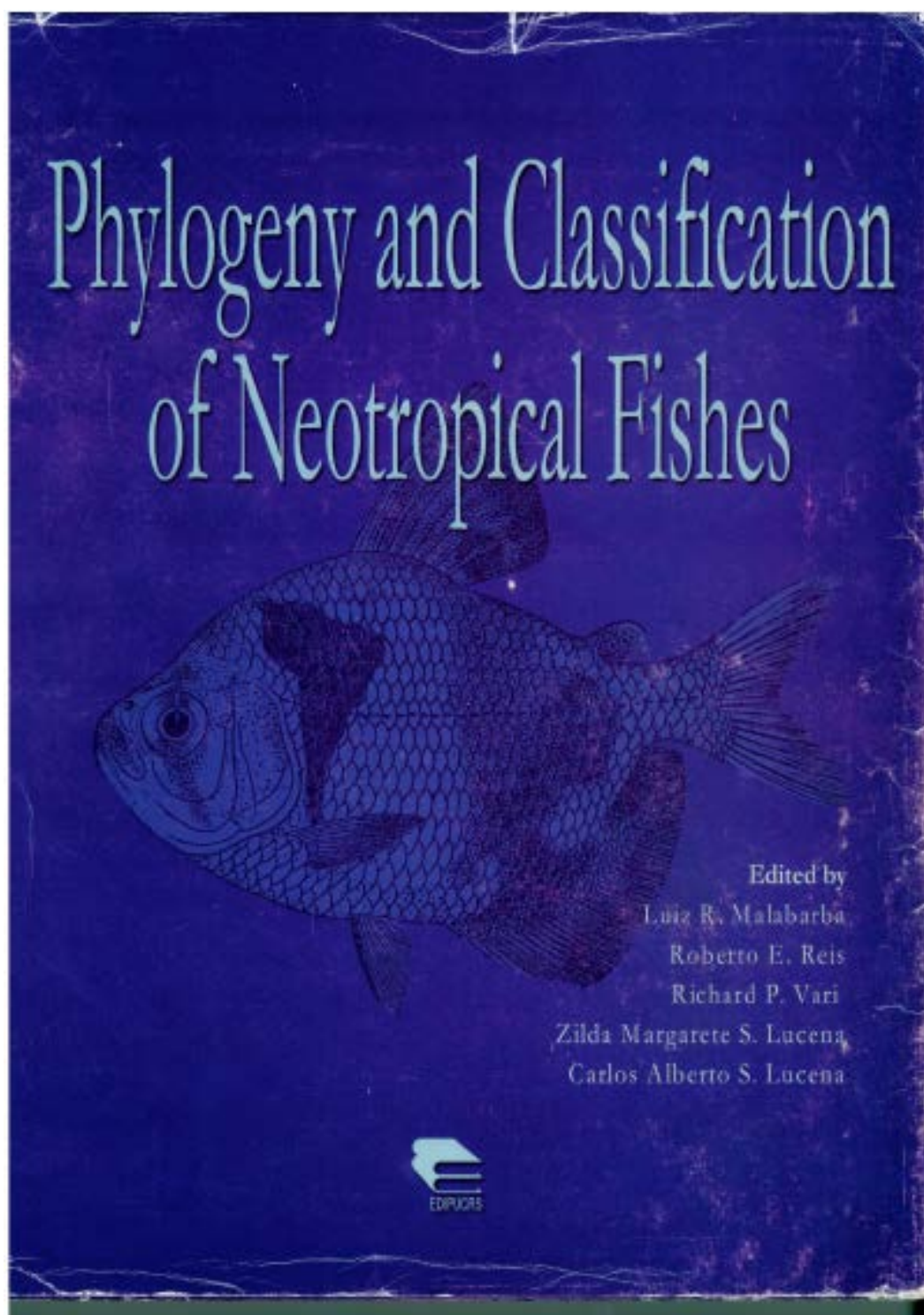
*Epacrossoxus*, a new genus of the loricariid catfish subfamily Hypoptopomatinae with three new species, and a new species of *Eurychellicthys* are described from southern Brazil. *Epacrossoxus* is diagnosed among genera of the Hypoptopomatinae by the posterior position of the dorsal fin and morphology of its internal supports and by absence of an expanded fleshy flap on the dorsal surface of the first pelvic-fin ray of males. The three *Epacrossoxus* species are each endemic to a very limited geographic area along the Atlantic coast of southern Brazil. *Epacrossoxus bilineatus* n. sp. is restricted to the rivers Mampituba and Três Forquilhas in northeastern Rio Grande do Sul State. *E. itaimbezinho* n. sp. is endemic to the rio Mampituba along the border between Rio Grande do Sul and Santa Catarina States, and *E. gracilis* n. sp. is endemic to the rio Acuraugua drainage of southern Santa Catarina State. These new species

are distinguished based on morphometric comparisons, color pattern, and arrangement of abdominal platelets. *Eurychellicthys lineatus* n. sp. is described from the upper reaches of the rio Jacuá drainage in Rio Grande do Sul State. This new species shares with its sole congener, *E. pantherinus*, a single synapomorphy, presence of seven branched pectoral-fin rays, and is distinguished from it by a more narrow body, head and dorsal trunk with series of longitudinal light stripes, versus scattered dark blotches, and presence of an accessory ceratobranchial flange and filamentous gill rakers, versus absence of those features in *E. pantherinus*. In addition to the presence of longitudinal stripe coloration and accessory teeth, these four species also share with several others, but not all hypoptopomatines, a peculiar shrike morphology of the skin at the base of the pectoral-fin spines, the function and biological significance of which is unknown.

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### Three New Species of the Loricariid Catfish Genus *Loricariichthys* (Teleostei: Siluriformes) from Southern South America

ROBERTO E. REIS AND EDSON H. L. PEREIRA

Sixteen species of *Loricariichthys* Bleeker, 1862 are currently recognized in South America, four of which inhabit the continent portion south of the Amazon basin: *Loricariichthys ana* (Valenciennes, 1836) from lower rio Paraná, rio Uruguay, and coastal streams in southern Brazil; *Loricariichthys costatus* (Castelnau, 1835) from coastal streams of southeastern Brazil; *Loricariichthys latialis* (Boulenger, 1895) from rio Paraguay and lower rio Paraná; and *Loricariichthys platystepus* Iherlinger and Nijssen, 1979, from Rio de la Plata basin. Three additional new species are described from this region, *Loricariichthys edentatus* n. sp. from the Province of Entre Ríos, Argentina; *Loricariichthys melanostictus* n. sp. from the rio Uruguay basin, and *Loricariichthys rosalia* n. sp. from the Itaipu Hydroelectric reservoir, in the rio Paraná. *Loricariichthys edentatus* n. sp. has no teeth on the premaxilla, a feature unique in the genus. The monophyly of the genus *Loricariichthys* is discussed and it is provisionally diagnosed by having (1) the third infrapharyngobranchial with a triangular lateral flange; (2) ventral shelf of the antero- and posterodorsal tail, deflected posteriorly so that it nearly forms a 180° angle with the main bodies of the bones; (3) the upper lip coalesced with the premaxillary region medially, never having barbel-like fringes along the transverse, medial portion and (4) the lower lip of immature males and females formed by two thick, cushionlike structures. *Loricariichthys spixi* (Steindachner, 1881) is regarded as a junior synonym of *L. costatus*.

Dozeenas espécies de *Loricariichthys* Bleeker, 1862 são atualmente reconhecidas na América do Sul, quatro das quais habitam as porções do continente ao sul da bacia Amazônica: *Loricariichthys ana* (Valenciennes, 1836) do baixo rio Paraná, rio Uruguay e bacias costeiras do sul do Brasil; *Loricariichthys costatus* (Castelnau, 1835) das bacias costeiras do sudeste do Brasil; *Loricariichthys latialis* (Boulenger, 1895) do rio Paraguai e baixo rio Paraná e *Loricariichthys platystepus* Iherlinger and Nijssen (1979) do rio Paraná, rio Paraguai e rio Uruguay. Três novas espécies são descritas desta mesma região: *Loricariichthys edentatus* sp. n. da Província de Entre Ríos, Argentina; *Loricariichthys melanostictus* sp. n. da bacia do rio Uruguay; e *Loricariichthys rosalia* sp. n. da região do lago da Usina Hidroelétrica de Itaipu, no rio Paraná. *Loricariichthys edentatus* sp. n. não apresenta dentes na premaxilar, um caráter único neste gênero. O monofilismo de *Loricariichthys* é discutido, sendo o gênero diagnosticado provisoriamente por apresentar: (1) o terceiro infrafaringobrânquial com uma lâmina lateral triangular; (2) lâminas ventrais das espinhosais anterior e posterior altas, defletidas posteriormente para quase formar um ângulo de 180° com o corpo principal dos ossos; (3) o lábio superior coalescido com a região da premaxilar medialmente, nunca possuindo franjas ou barbelas ao longo da porção medio-transversal; e (4) o lábio inferior de machos imaturos e fêmeas formado por duas estruturas grossas e arredondadas. *Loricariichthys spixi* (Steindachner, 1881) é considerado sinônimo júnior de *L. costatus*.

THE genus *Loricariichthys* Bleeker, 1862, is diverse and widespread across much of South America, being distributed in most major cis-Andean freshwater drainages north of Buenos Aires. Species of *Loricariichthys* have never been recorded from the rio São Francisco nor from the upper rio Paraná drainage. Besides these two major river basins, *Loricariichthys* species have also never been found in the coastal drainages of southern Brazil, between the rio

Mampituba in Rio Grande do Sul and the rio Ribeira do Iguaçu in southern São Paulo nor in the smaller coastal basins of eastern and north-eastern Brazil, between the rio São Mateus in southern Bahia and the rio Jaguaribe in Ceará State. In this paper, we describe three new species inhabiting the Paraguayan-Paraná drainage, in addition to the 16 species of *Loricariichthys* recognized as valid by Iherlinger (1980), and re-describe the four species inhabiting the portion



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# Revision of the loricariid genera *Hemipsilichthys* and *Isbrueckerichthys* (Teleostei: Siluriformes), with descriptions of five new species of *Hemipsilichthys*

Edson H. L. Pereira\* and Roberto E. Reis\*

Genera *Hemipsilichthys* and *Isbrueckerichthys* are revised. Eighteen species are recognized in the genus *Hemipsilichthys*: *H. bifasciatus*, *H. calderoni*, *H. crenatus*, *H. garbei*, *H. gobio*, *H. mactans*, *H. nudulus*, *H. papillatus*, *H. regani*, *H. splendens*, *H. steindachneri*, *H. stephanyus*, and *H. vestigiipinnis*. Five new species of *Hemipsilichthys* are described: *H. stansius* and *H. atygocheilus* from coastal rivers of Santa Catarina State; *H. lystrix* and *H. eurycephalus* from the upper rio Uruguai drainage, and *H. hyposternus* from coastal rivers of northeastern Rio Grande do Sul State. Two species are recognized in *Isbrueckerichthys*: *I. dixonii* and *I. alpinensis*. With the exception of *H. regani* from the rio Negro, Amazon basin, all species of *Hemipsilichthys* and *Isbrueckerichthys* are from the Brazilian shield between Rio Grande do Sul and Southern Bahia. *Upisodus* is synonymized with *Hemipsilichthys*, and *U. victori* is synonymized with *H. gobio*. *Hemipsilichthys steindachneri* is resurrected from the synonymy of *H. calderoni*. Lectotypes are designated for *H. calderoni*, *H. steindachneri*, and *H. crenatus*.

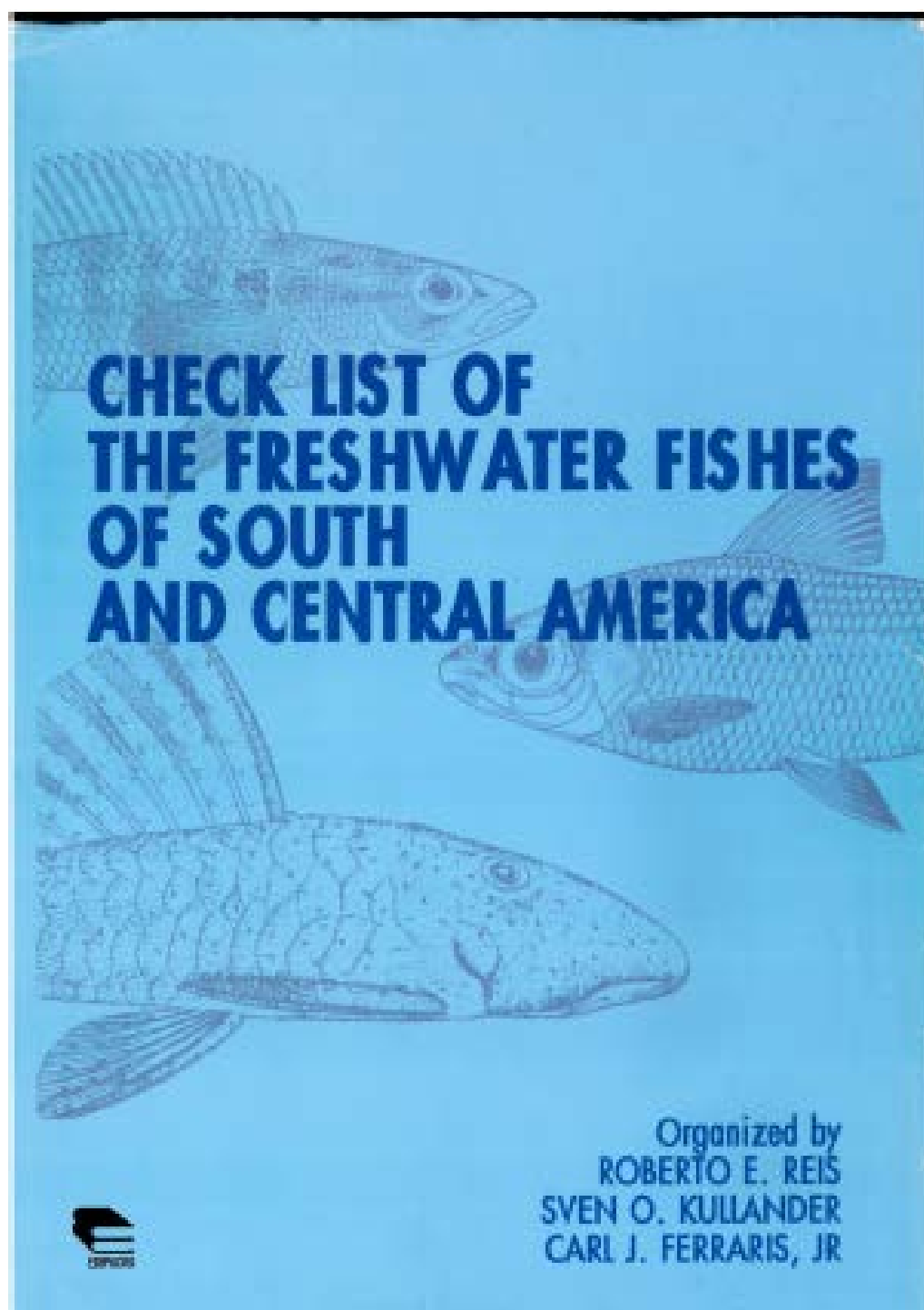
Os gêneros *Hemipsilichthys* e *Isbrueckerichthys* são revisados. Dezoito espécies são assinaladas para o gênero *Hemipsilichthys*: *H. bifasciatus*, *H. calderoni*, *H. crenatus*, *H. garbei*, *H. gobio*, *H. mactans*, *H. nudulus*, *H. papillatus*, *H. regani*, *H. splendens*, *H. steindachneri*, *H. stephanyus*, and *H. vestigiipinnis*. Cinco novas espécies de *Hemipsilichthys* são descritas: *H. stansius* e *H. atygocheilus* dos rios costeiros do estado de Santa Catarina; *H. lystrix* e *H. eurycephalus* do rio Uruguai superior e *H. hyposternus* dos rios costeiros do nordeste do Rio Grande do Sul. Duas espécies são reconhecidas em *Isbrueckerichthys*: *I. dixonii* e *I. alpinensis*. Com exceção de *H. regani* que é do rio Negro, bacia amazônica, todas as espécies de *Hemipsilichthys* e *Isbrueckerichthys* são do escudo brasileiro entre o Rio Grande do Sul e o Sul da Bahia. *Upisodus* é sincretizado com *Hemipsilichthys*, e *U. victori* é sincretizado com *H. gobio*. *Hemipsilichthys steindachneri* é retirado da sinonímia de *H. calderoni*. São designados lectótipos para *H. calderoni*, *H. steindachneri* e *H. crenatus*.

## Introduction

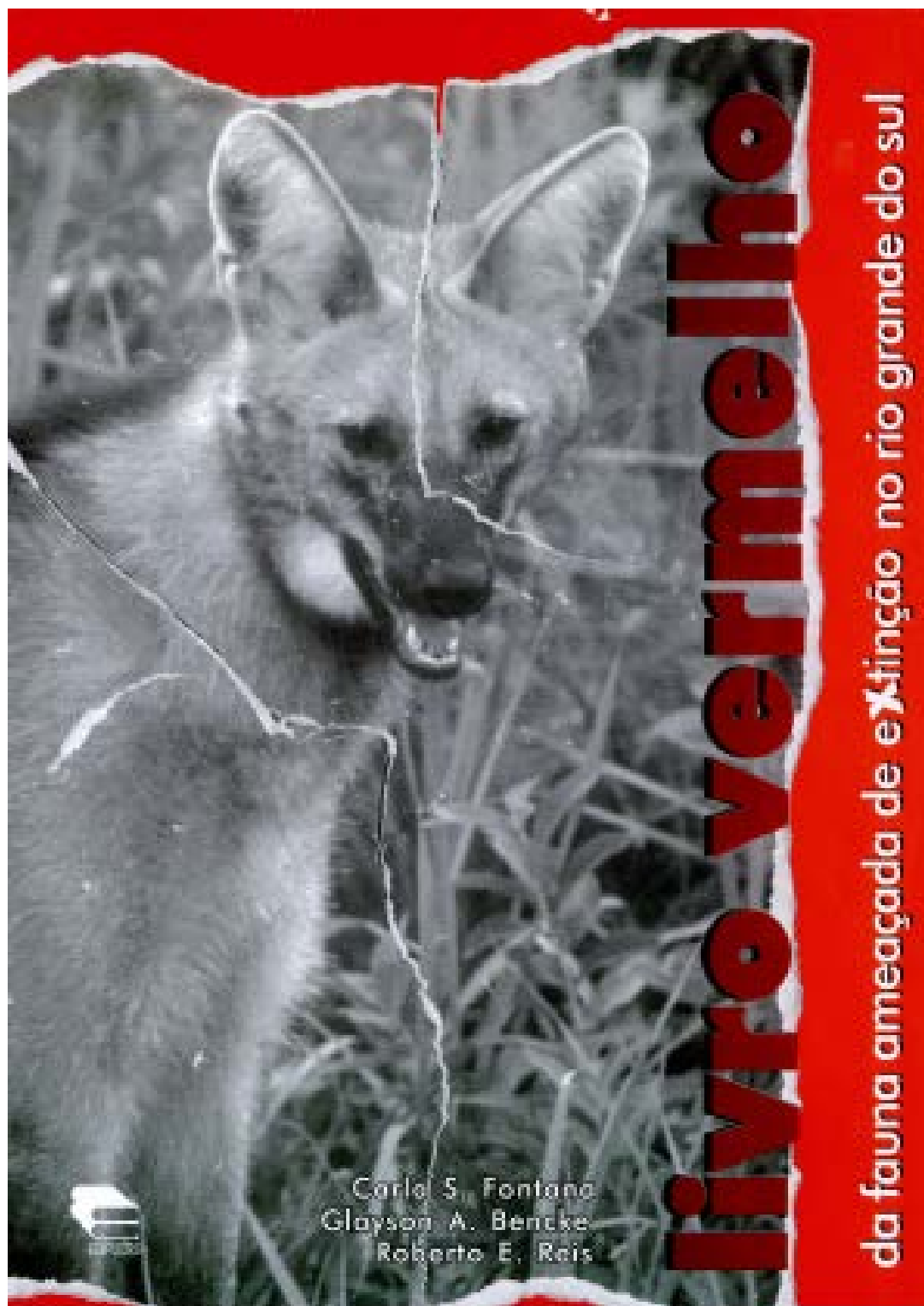
Both *Hemipsilichthys* and *Isbrueckerichthys* are composed of small- to medium-sized species of cichlids (armored catfishes, Loricariidae), that inhabit the rivers running on the mesozoic basaltic

lava flows of the Brazilian shield. Most species are found in the coastal drainages from southern Brazil north to the rio Almada in southern Bahia State and headwaters of the rio São Francisco, while one species was described from a tributary of the rio Negro, in the heart of the Amazon.

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## ***Otocinclus cocama*, a new uniquely colored loricarid catfish from Peru (Teleostei: Siluriformes), with comments on the impact of taxonomic revisions to the discovery of new taxa**

Roberto E. Reis

A new, uniquely colored species of the loricarid catfish genus *Otocinclus*, *O. cocama* is described from a tributary to the lower río Ucayali in northern Peru. The new species is distinguished from other *Otocinclus* species by two putatively autapomorphic features, the distinct color pattern, consisting of vertically elongated blotches spanning from the dorsal midline to the ventral border of flanks, and by a complete lateral line. The phylogenetic relationships of the new species are investigated and it is apparently more closely related to a clade formed by *O. ausorani*, *O. bororo*, *O. mariae*, and *O. nana*. Comments on the impact of taxonomic revisions for the discovery and description of previously undetected biodiversity are also presented.

Uma nova espécie de bagre loricarídeo de coloração única do gênero *Otocinclus*, *O. cocama*, é descrita de um afluente do baixo rio Ucayali no norte do Peru. A nova espécie se distingue das demais espécies de *Otocinclus* por dois caracteres supostamente autapomórficos, o padrão de coloração diferenciado, que consiste em marcas alongadas verticalmente desde a linha média dorsal até a porção ventral dos flancos, e por uma linha lateral completa. As relações filogenéticas da nova espécie são investigadas e ela é aparentemente mais proximamente relacionada ao clado formado por *O. ausorani*, *O. bororo*, *O. mariae* e *O. nana*. Ao final, são apresentados comentários sobre o impacto de revisões taxonômicas no descobrimento e descrição de biodiversidade previamente não detectada.

**Key words:** Systematics, Taxonomy, South America, Neotropical, Loricariidae, Loricariini, Phylogeny.

### **Introduction**

The genus *Otocinclus* has 15 species and a few other undescribed are already known to scientists. It was recently revised by Schaefer (1997) who recognized 13 species as valid, five of which were originally described in that paper. The species of *Otocinclus* are widely distributed in cis-Andean South America, from northern Venezuela to northern Argentina, usually inhabiting small to medium sized water bodies, often associated with marginal vegetation.

*Otocinclus* is the most basal genus in the tribe Hypoptopomatini (Schaefer, 1998). Its monophyly being supported by seven uniquely derived features (Schaefer, 1997).

A 55-year span has occurred between the description of *O. macropodus* Eigenmann & Allen, 1942 and Schaefer's (1997) revision of *Otocinclus*, where five new species were described. After 1997, four additional species have already been found,

*O. lapinipe* Brito & Moreira, 2002, *O. minckleyi* Axenrot & Kullander, 2003, the one being described in the present paper, and another, yet undescribed, species from Peru and Colombia. This pattern of new species being described soon after the publication of a revision is relatively common and will be discussed below.

During the course of an expedition of the Ucayali Project in the lower río Ucayali, we found the specimens used in this paper with aquarium fish collectors in the locality of Jenaro Herrera. The species described herein is already known and very popular in the aquarium trade at least since 2000, where it is known as *Otocinclus* "zebra". The aim of this paper is to formally describe and make a scientific name available to this species.

### **Material and Methods**

Most of the methods employed in this paper follow those

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## Delturinae, a new loricariid catfish subfamily (Teleostei, Siluriformes), with revisions of *Delturus* and *Hemipsilichthys*

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A new subfamily, Delturinae, is described to accommodate the loricariid catfish genera *Delturus* Eigenmann & Eigenmann, 1889 and *Hemipsilichthys* Eigenmann & Eigenmann, 1889, a clade currently demonstrated to be the sister group of all remaining loricariids except Lithogenini. The genus *Hemipsilichthys* is restricted to three species: *H. gubii* (Lutken, 1874), its sister species *H. popilliana* Pereira *et al.*, 2008, and *H. sinuata* Pereira *et al.*, 2008. Relationships among species of *Delturus* were not resolved and a new species, *D. brevis*, is described from the Rio Jequitinhonha basin in eastern Brazil. The geographical distribution of Delturinae, exclusively on the south-eastern Brazilian Shield, indicates that south-eastern Brazil acts as either a refuge for basal loricariid taxa or a point of origin for the Loricariidae. Lectotypes are designated for *D. poraulyae* Eigenmann & Eigenmann, 1889 and *Neoplectostomus angulirostris* Steindachner, 1871. Keys are provided for subfamilies of Loricariidae and for genera and species of Delturinae. Diagrams are provided for all Delturinae clades and species. © 2008 The Linnean Society of London, *Zoological Journal of the Linnean Society*, 2008, 147, 277–299.

**ADDITIONAL KEYWORDS:** Loricariidae – Loricariidae – South America – systematics – taxonomy.

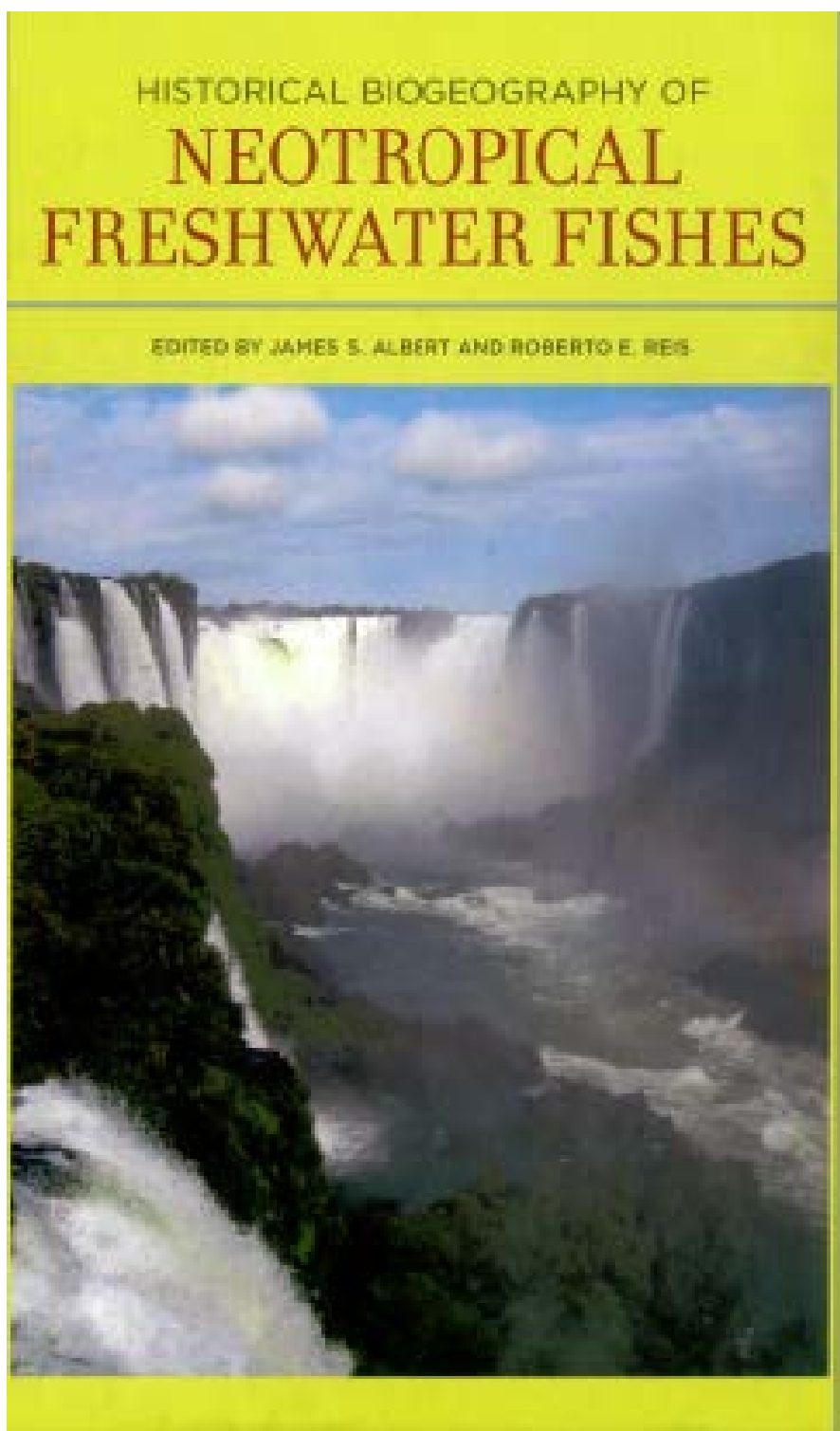
### INTRODUCTION

Loricariidae is the largest catfish family, with 673 species currently recognized (Bleeker, Kallander & Ferraris, 2003). Traditionally, the Loricariidae has been divided into several subfamilies. However, the classification of genera to subfamilies has not been stable. Instability has been caused by both the finding of previously undetected diversity in the family and the advent of phylogenetic analysis. Regan (1994) settled a subfamily level classification for the loricariids (then with 389 species) that served as a basis for modern classifications. He recognized the subfamilies Psectrogoninae (most similar to Armbruster's (2004) recent definition of Hypostominae, plus *Delturus* Eigenmann & Eigenmann, 1889 and *Hemipsilichthys* Eigenmann &

Eigenmann, 1889); Hypoptopomatinae, Loricariinae, Neoplectostominae (including only *Neoplectostomus* Eigenmann & Eigenmann, 1889), and Aeglininae, which included the species presently assigned to the family Astroblepidae.

Godwin (1947), in light of the c. 400 loricariid species then known, recognized the subfamilies Astroblepinae (including species of *Astroblepus* Bleeker, 1868, formerly *Argus* Valenciennes, 1840), Lithogeninae (including *Lithogenus villosus* Eigenmann, 1889, which he considered as intermediate between *Astroblepus* and *Neoplectostomus*), Neoplectostominae, Psectrogoninae, Hypoptopomatinae, and Loricariinae. Contrary to previous classifications, Godwin's Neoplectostominae included *Upisilichthys* Miranda Ribeiro, 1934, *Hemipsilichthys*, *Pseudoclinichthys* Miranda Ribeiro, 1918, *Pseudoclinichthys* Godwin, 1947, *Kribia* Miranda Ribeiro, 1908, *Corynopoma* Eigenmann, 1889, *Delturus*, *Astroblepus* Agassiz, 1828, *Geophagus* Eigenmann, 1818, *Pige-*

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Roberto Reis com exemplar de *Brachyplatystoma filamentosum* (Piraíba), expedição ao rio Tocantins, Brasil, 2013





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